Listing of Claims

1. (Previously presented) A method for removing non-loaded amino groups which form part of the silanating agent used to activate a metal oxide surface during the preparation of metal oxide supports loaded with biomolecules, comprising the steps of:

(a) activating the surface of the support by means of a silanating agent comprising an amine group;

(b) loading the support by attaching biomolecules to the activated surface; and

(c) treating said loaded support with an acidic solution.

2. (Previously presented) A method for removing non-loaded amino groups which form part of the silanating agent used to activate a metal oxide surface during the preparation of metal oxide supports loaded with biomolecules, comprising the steps of:

(a) activating the surface of the support by means of a silanating agent comprising an amine group;

(b) loading the support by attaching biomolecules to the activated surface; and

(c) treating said loaded support with a basic or neutral solution.

3. (Previously presented) The method of claim 1, wherein the solution is of pH 2 to 6.

4. (Original) The method of claim 3, wherein the biomolecules are oligonucleotides and the pH is 4-5.

5. (Original) The method of claim 1, wherein the metal oxide support is a (electrochemically manufactured) porous metal oxide membrane.

6. (Original) The method of claim 5, wherein the metal oxide is aluminium oxide.

7. (Original) The method of claim 1, wherein the support is activated by means of a silanating agent comprising an amine group selected from 3-aminopropyltriethoxysilane, 4-aminobutyl-dimethyl-methoxysilane, 3-[2-(2-aminoethylamino)ethylamino]propyl-trimethoxysilane, 3-(2-aminoethylamino)propyl-methyldimethyoxysilane, 3-(2-aminoethylamino)propyl-trimethyoxysilane, 3-aminopropyl-methyl-diethoxysilane, (3-aminopropyl)tris[2-(2-methoxyethoxy)ethoxy]silane and 4-aminobutyltriethoxysilane.

8. (Original) The method of claim 7, wherein the silanating agent comprising an amine group is 3-aminopropyltriethoxysilane.

9. (Original) The method of claim 8, wherein 3-aminopropyl triethoxysilane is used in an unbuffered aqueous solution.

10. (Original) The method of claim 1, wherein the biomolecules are adsorptively attached to the activated surface of the support.

11. (Original) The method of claim 1, wherein the biomolecules are attached to the activated surface in spots, thereby forming an array of spots.

12. (Original) The method of claim 11, wherein the biomolecules attached to the surface in different spots may be the same or different.

13. (Original) The method of claim 1, wherein the biomolecules are oligonucleotides.

14. (Original) A loaded metal oxide support prepared according to the method of claim 1.

15. (Original) An aminoalkyltrialkoxysilane-activated metal oxide support, provided with an array of spots of biomolecules attached to the support, characterized in that on the array the density of amino groups on the surface area between the spots is significantly lower than the density of amino groups in the spots.

16. (Previously presented) The metal oxide support of claim 14, suitable for performing a probe-based assay.

17. (Previously presented) A kit comprising the metal oxide support of claim 14, further comprising a detection means for determining whether binding has occurred between the biomolecules and an analyte.

I8. (Original) A kit according to claim 17, wherein the detection means is a substance capable of binding to the analyte and being provided with a label.

19. (Original) A kit according to claim 18, wherein the label is capable of inducing a colour reaction and/or capable of bio-, chemo- or photoluminescence.

20. (Previously presented) The method of claim 2, wherein the solution is pH 6-7.

21. (Previously presented) The metal oxide support of claim 15, suitable for performing a probe-based assay.

22. (Previously presented) A kit comprising the metal oxide support of claim 15, further comprising a detection means for determining whether binding has occurred between the biomolecules and an analyte.